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2500 SHREVEPORT HIGHWAY · PINEVILLE, LOUISIANA 71360



A Word of Thanks to My Colleagues

I had the honor of receiving from Dr. Tom Payne (Entomology Department, Texas A&M University) an inscribed plaque, a Boehm bird figurine, and a "beetlebuster" cap and teeshirt during the proceedings of the recent IPM Research Symposium in Asheville. Another memento was received later. This presentation was described as an expression of appreciation and support from my many colleagues and associates who have been involved with the Expanded Southern Pine Beetle Research and Applications Program and its successor, the Integrated Pest Management RD&A Program for Bark Beetles of Southern Pines, during the past 11 years.

My wife Harriet and I were deeply touched by the thoughtfulness that was reflected in these presentations and by the spontaneous response from the symposium attendees. I would like to use this means to express my personal thanks to all those who contributed to this special event.

As I have indicated to several individuals, this job, like any job, has had its ups and downs. However, never in my professional career have I enjoyed an overall experience as much as this one. The working relationships, the sharing among individuals in different organizations and disciplines throughout the South, and the accomplishments of many have meant much to me. I deeply appreciate both the personal and collective efforts of all who have played a part in this accelerated effort and the recognition that was accorded me at our final symposium. ... Bob Thatcher

Symposium Climaxes IPM Program in Style

The wrapup symposium of the IPM Program was held on April 15-18 at the Grove Park Inn in Asheville, NC. Introductory speakers were Dr. Arnett C. Mace, Director of the School of Forest Resources and Conservation, University of Florida, and Dr. Keith R. Shea, Associate Deputy Chief for Research, Forest Service. Thirty-

seven presented papers summarized the findings from research and development work conducted as part of the IPM RD&A Program during its 5-year history, initiated in 1980. Presentations covered the areas of sampling and impact assessment, bark beetle biology and ecology, host susceptibility, host/pest interactions, direct and indirect control, and management approaches and IPM systems. Speakers and topics were given in PM News #51.

The proceedings of the symposium have been delivered to the printer, with a scheduled publication date of mid- to late-August. The volume is titled "Integrated Pest Management Research Symposium: the Proceedings," edited by Susan J. Branham and Robert C. Thatcher. It will be issued by the Southern Forest Experiment Station as General Technical Report SO-56.

Sorry ... We Goofed!

On page 3 of the last issue of PM News, we made a serious error in reporting that "New Wilderness Act Prompts Updated SPB Policy." In the second paragraph, the statement that reads "Generally, a spot must spread to more than 30 acres before controls are undertaken ..." should have read "30 trees ..." We apologize to our readers for the error, and hope that it didn't lead to any misunderstandings on their part or that of our source.

Bridges Assumes Advisory Role

Dr. J. Robert Bridges of the Southern Pine Bark Beetle Project, Southern Station, will be serving on special assignment to the IPM Program to provide technical assistance during the Program's final months of operation. Bridges will act as a backup to Program Manager Bob Thatcher while the latter serves intermittently as an advisor to a program being initiated at the Southeastern Station in Asheville, NC.

"We're very fortunate to have Bob Bridges' services during this wrapup phase," said Thatcher in announcing the assignment.

Thirtieth SFIWC On Tap

The 30th Southern Forest Insect Work Conference is scheduled for July 30-August 1 at the Inn on the Plaza in Asheville, NC. The meetings will consist of a series of panels and concurrent workshops concentrating on various aspects of forest pest management emphasizing gypsy moth control efforts and current technologies, the effects of atmospheric deposition on southern forests, and current pest management strategies for southern pine beetle control. Registration and program information can be obtained by contacting Julie Weatherby, USDA Forest Service, 2500 Shreveport Highway, Pineville, LA 71360 (318/473-7296).

Wilderness Conference Breaks New Ground

With more than 200 people in attendance, including over 100 from the Forest Service, the Wilderness Symposium held May 13-15 in Nacogdoches, TX, is being called a "landmark conference." The meeting addressed the issues of ecology and management of wilderness and natural areas in the eastern United States with the purpose of providing a forum for exchange of ideas between researchers and land managers. It was under the joint sponsorship of Stephen F. Austin State University's School of Forestry, the U.S. Forest Service, and the Wilderness Society. Program Manager Bob Thatcher and Writer-Editor Susan Branham attended from the IPM Program. Former IPM Research Coordinator Garland Mason presented a paper in the Forest Protection session on "Integrated Pest Management Concepts and Application in Wilderness and Natural Areas Management."

In his introductory remarks, John Alcock, Regional Forester for the Southern Region, referred to the conference as a milestone in the development of the "science and art" of wilderness management. He stressed that the conference's goal was not to debate the existence of wilderness or how much wilderness, but to advance our knowledge and expertise in its management. He described the Wilderness Act as a well-crafted piece of legislation that provided practical guidance in this regard, and observed that it depicts an ideal that managers must strive to achieve. Alcock also noted the unique features of eastern wildernesses and stated that there are now 59 designated wildernesses in Region 8. In another introductory presentation, Southern Station Director Tom Ellis observed that the Station dealt with research subjects involving wilderness and that most of this research is conducted in collaboration with universities. Ellis also emphasized that foresters and environmentalists are not as disparate in view as might be thought.

One of five keynote speakers, Peter Kirby of the Wilderness Society pointed out that although there were

divergent opinions on wilderness management, especially in the areas of insect and fire control, the Society strongly supports added professionalism in wilderness management and was pleased to be a conference cosponsor. He then discussed the reasons for having wilderness areas and some recent management issues. Another keynoter, John Hendee, Assistant Director of the Forest Service's Southeastern Forest Experiment Station in Asheville, NC, observed that maintaining the natural state was more difficult in eastern wilderness areas because they are smaller, more impacted, closer to people, and have experienced previous use. Pointing out that wilderness is a subject that involves our "passions as well as our expertise", Hendee stressed that it must "coexist" with other resource values. Paul Barker of the Forest Service's Washington Office Recreation Management Staff observed that wilderness areas in the East and West are both alike and different, but that the Wilderness Act contains specific guidelines for management of all wildernesses that must be adhered to. He noted that wilderness must be "managed" because it involves people. Larry Phillips of Region 8, another keynoter, traced the history and status of wilderness management issues. The final keynoter, Dave Drummond, Forest Pest Management, State & Private Forestry, Pineville, LA, described a hypothetical wilderness trip replete with the unique problems currently being faced by wilderness managers in the East.

A highlight of the conference was the wrapup presented by Bob Lucas (Intermountain Station), followed by a panel discussion on wilderness and natural areas management challenges that featured panelists from a cross section of natural resource agencies and organizations. A full agenda of symposium topics and speakers appeared in the last issue of PM News. The conference's 60 sessions spread over 3 days covered specific wilderness issues as well as wilderness pest problems and controls, which have received considerable media attention in the past few months.

Coordinators Dave Kulhavy (SFA) and Dick Conner (SO Station) expect to get the symposium proceedings into publishable form in the very near future. Interested readers may contact either Dave or Dick at, respectively, The School of Forestry, Box 6109 (409/569-3301), or Southern Forest Experiment Station, Box 7600, SFA Station, Nacogdoches (409/569-7981).

Handbook Number Changed

Due to a USDA numbering error, the series number of IPM's Agriculture Handbook entitled "Rating the Susceptibility of Stands to Southern Pine Beetle Attack," has been changed to AH 645. Our publication notice appeared in the last issue of PM News. Requests for copies should be addressed to: IPM Program, 2500 Shreveport Highway, Pineville, LA 71360; phone 318/473-7250.

Texas Seminar Airs Diverse Topics

The spring 1985 session of the East Texas Forest Entomology Seminar was held at the Kurth Lake Lodge near Nacogdoches, TX on May 23 and 24. The meeting was cosponsored by the Texas Forest Service and the School of Forestry at Stephen F. Austin State University, and hosted jointly by Ron Billings (TFS) and Dave Kulhavy (SFA). A synopsis of agenda topics follows:

THURSDAY, May 23

Current status of Southern Pine Beetle in Texas

SPEAKER: Joe Pase, Texas Forest Service

Seasonal Soil Water Balance and Oleoresin Flow in Relation to Loblolly Pine Growth/Differentiation: Implications for SPB/Tree Interactions

SPEAKERS: Peter Lorio and Bob Sommers, Southern Forest Experiment Station, USDA Forest Service, Pineville, LA

Testing the New Association Theory for Bark Beetle Host-Parasite Interactions

SPEAKER: John Moser, Southern Forest Experiment Station, USDA Forest Service, Pineville, LA

Evaluation of Patterns of Use of ESA Journals

SPEAKER: Jackie Robertson, Pacific Southwest Forest & Range Experiment Station, USDA Forest Service, Berkeley, CA

A Practical Guide to Graduate Study

SPEAKER: Molly Stock, University of Idaho, Moscow, ID

Impact of Insecticides on Parasites of Forest Pests

SPEAKER: Carroll Williams, Pacific Southwest Forest and Range Experiment Station, USDA Forest Service, Berkeley, CA

FRIDAY, May 24

Seasonal Abundance and Distribution of Insect Associates of *Ips grandicollis*

SPEAKER: Jim Bing, Stephen F. Austin State University, Nacogdoches, TX

Response of Southern Pine Beetle to Induced Host Stress

SPEAKER: Richard Flamm, Texas A&M University, College Station, TX

Scale Insects - A New Problem Facing Pine Seed Orchard Managers

SPEAKER: Scott Cameron, Texas Forest Service, Lufkin, TX

Biological Control of the Southern Pine Beetle with Insect Enemies of Allied *Dendroctonus*

SPEAKER: Mitch Miller, Southern Forest Experiment Station, USDA Forest Service, Pineville, LA

Following the formal session on Thursday, Ron Billings presented a slide show on his recent beetle fact-finding trip to Haiti. (See related item elsewhere in this issue).

Predictions Notebook Issued

"Predicting Southern Pine Beetle and Disease Trends," a training manual for administrative use, was recently distributed by the IPM Program office. Compiled by former staff members Garland Mason and Gerry Hertel and Program Manager Bob Thatcher, the manual is in the form of a three-ring notebook that summarizes the most useful computer and noncomputer-based models and procedures for making pest trend predictions. The notebook is divided into four sections and gives primary attention to the southern pine beetle. However, it also contains related technologies for dealing with associated diseases of southern pines.

The notebook's first three sections deal directly with techniques for predicting SPB trends. Section I allows the user to select the appropriate time frame and management unit for his individual situation. Section II provides listings of all prediction techniques available for each time period and management unit, and also indicates the general geographic region in which each system can be used. Section III explains each system in detail (description, inputs, outputs, accessibility, sources of additional information). Section IV details other management or information systems that contain guidelines for improved prediction or management decisionmaking on SPB or associated insects and diseases.

The predictions notebook was designed to be updated as new technology is developed or as refinements and additions to existing technology are issued. It is intended as a main reference source for informal training of Federal and State pest management specialists in predictive techniques.

SPB Alive and Kicking in Texas

The following information has been furnished to PM News by Joe Pase of the Pest Control Section, Texas Forest Service, and will bring our readers up to date on the SPB status in Texas as well as provide interesting comparisons with 1976, the last big beetle year in the State:

Southern Pine Beetle Update — Texas
1985

| | |
|---|------------|
| State and private lands as of 22 May 1985 | 2400 spots |
| USFS lands as of 22 May 1985 | 2000 spots |
| | 4400 spots |

Most of the activity is in Walker, San Jacinto, Polk, Liberty, Hardin, Jasper, Newton, and Montgomery counties. The Big Sandy Unit on the Big Thicket National Preserve currently has three infestations that total 700 - 1000 acres (they may have grown together on the ground). A significant number of infestations is originating in young (7-12 year old) pine plantations. This was seen some during 1984, but has not commonly occurred in Texas in past years. The Tenaha Ranger District of the Sabine National Forest is the only ranger district not currently experiencing a serious SPB problem. All five wilderness areas continue to experience SPB infestations.

1976

State and private lands as of 20 May 1976 . . 1774 spots
(A count of USFS spots for 1976 was not available)

Historically, 1976 was the worst year known for SPB-caused losses. Nearly 11,000 infestations were reported on State and private lands with an estimated mortality of nearly 52 million cubic feet of timber. During 1976, new spots detected per month averaged 1600 for the period May-October. Hopefully, this will not be the trend for 1985. From 25 April to 22 May 1985, a total of 1800 new infestations was detected on State and private lands.

IPM Publication Status Updated

As of this writing, the following manuscripts have been submitted for publication by the IPM Program and are in the indicated stage of processing:

Belanger, R.P.; Hedden, R.L., Tainter, F.H. Managing Piedmont forests to reduce losses from the littleleaf disease — southern pine beetle complex. Agriculture Handbook. Submitted to Washington Office, FS, for approval to print.

Branham, Susan J.; Thatcher, Robert C.; Mason, Garland N.; Hertel, Gerard D. Integrated pest management in the South: highlights of a 5-year program. Agric. Inf. Bull. 491. Galley proofs reviewed and returned April 1985.

Branham, Susan J.; Thatcher, Robert C. Integrated pest management research symposium: the proceedings. Gen. Tech. Rep. SO-56. Submitted through the Southern Station to the GPO (Dallas Region).

Goyer, R.A.; Lenhard, G.J.; Nebeker, T.E.; Schmitt, J.J. Distinguishing immatures of insect associates of southern pine bark beetles. Agriculture Handbook. Galley proofs reviewed and returned June 1985.

Hertel, Gerard D.; Branham, Susan J.; Swain, Kenneth. Technology transfer in integrated pest management in the South. Technical Bulletin. Submitted to Washington Office, FS, for approval to print.

Nebeker, T.E.; Hodges, J.D.; Karr, B.A.; Moehring, D.M. Thinning practices in southern pines—with pest

management recommendations. Technical Bulletin 1703. Submitted through USDA to the GPO.

Patterson, David W. SAMTAM: A guide to sawmill profitability for green and beetle-killed timber. Agriculture Handbook. Submitted to Washington Office, FS, for approval to print.

Thatcher, Robert C.; Mason, Garland N.; Hertel, Gerard D. Integrated pest management in southern pine forests. Agriculture Handbook. Submitted to Washington Office, FS, for approval to print.

Woodson, George, Utilization of beetle-killed southern pines. General Tech. Report WO-47. Submitted through USDA to the GPO.

Beetlemania Goes International!

Ron Billings of the Texas Forest Service passed along some interesting taxonomic information gleaned from his recent factfinding trip to Haiti. This trip was undertaken to provide professional assistance for the U.S. Forest Service's International Forestry unit in determining the nature of the country's beetle problems.

Ron brought back a number of scolytid specimens, which he sent for identification to Dr. Stephen L. Wood of the Life Sciences Museum at Brigham Young University. Ron reveals that Dr. Wood's report shows two larger species to be common *Ips calligraphus* (Germar) and *Ips grandicollis* (Eichhoff), but a third sample contained specimens identified as *Hylastes tenuis* Eichhoff, one anobiid, and three species of *Pityophthorus*, at least two of which appear to be new!! Dr. Wood's report closed by urging Ron to obtain additional beetle specimens from Haiti for study, because, except for *Ips* and *Dendroctonus*, the scolytid fauna of Haiti is virtually unknown.

Goyer Appointed Pest Control Advisor

Dr. Richard L. Goyer of Louisiana State University was recently named to serve as official consultant for pest control for the Louisiana Office of Forestry. Rich has been an IPM Program cooperator and is at present a Professor in LSU's Department of Entomology. He recently authored an IPM-sponsored Agriculture Handbook entitled "Distinguishing Immatures of Insect Associates of Southern Pine Bark Beetles," due off the press in the near future.

Thatcher to Attend World Forestry Congress

IPM Program Manager Bob Thatcher is slated to attend the Nineteenth World Forestry Congress in Mexico City, July 1-12, 1985. A paper coauthored by Thatcher and Ron Billings of the Texas Forest Service, entitled "Toward Integrated Management of Forest Pests in the Southern United States," has been submitted for consideration for presentation at and inclusion in the proceedings of the Congress. The paper has been proposed for Technical Session I, Silviculture, Management, Conservation and Protection of Forestry and Wildlife Resources.

IPM Co-op Releases Annual Report

The Integrated Forest Pest Management Cooperative recently issued its annual report for 1984-85. The IFPM is an applied research cooperative sponsored jointly by the Southeastern Forest Experiment Station, the School of Forest Resources and Conservation and Department of Entomology and Nematology of the University of Florida, State forestry agencies, and forest industry. Its mission is the testing and implementation of integrated pest management strategies in southern forests.

The Cooperative's annual report details progress over the past year (its fourth of operation) as well as future plans. The report also includes a list of publications produced by members during 1984-85.

Interested readers should contact Program Manager Jeffrey G. Wischer, IFPM Co-op, School of Forest Resources and Conservation, University of Florida, Gainesville, FL 32611.

Beetles, Spare That Tree!

A Louisiana newspaper reported in a recent edition that a 170-year-old loblolly pine that was a State and National "champion tree" had fallen victim to southern pine beetles. The Alexandria Daily Town Talk stated that the tree was recently felled by loggers after it died. Located on Louisiana-Pacific Corporation land, the champion pine scaled out at 5,664 board feet, enough wood to build a small frame house! The tree was taken to a Louisiana Pacific mill near Alexandria to be cut for lumber.

Fusiform Rust Breakthrough Announced

The spring issue of "Georgia Forestry," quarterly journal of the Georgia Forestry Commission, describes a genetic breakthrough in fusiform rust resistance achieved through a joint research effort involving the Commission and the Forest Service's Southeastern Station. The report states that the development of highly resistant seedlings is the culmination of 10 years of intensive research, and will save pine producing southern States millions of dollars. In announcing the achievement, the Commission director estimated that pine losses to fusiform rust in the South amounted to more than \$110 million annually and that about 75 percent of all pines in Georgia are infected. Test results with the new seeds show that infection will be 50 percent less for slash pine and 40 percent less for loblolly. More information can be obtained from the Commission, Route 1, Box 85, Dry Prong, GA 31020.

SPB Frets Mississippi Foresters

According to recent press releases, southern pine beetle infestations are at a high enough level this spring on the National Forests in Mississippi to cause considerable concern. Particularly hard hit are forests in the southern half of the State, notably the Bienville and the Homochitto, where more than 700 infestations have been reported. Forest Supervisor Bud Braddock stated that over 14 million board feet of timber have been marked for removal because of the outbreak. We'll keep readers posted.

New Decisionmaking Software Available

Microcomputer software for the Apple II detailing the economics of pest control strategies is now available from the U.S. Forest Service's Southern Region headquarters. The programs deal with chemical control of annosus root rot, analysis of need to regenerate plantations with high levels of fusiform rust, and cost/benefits of using rust-resistant pine planting stock. Interested readers may request more information about the "Economics of Pest Control Strategies" packet from: Forest Pest Management, USDA Forest Service, 1720 Peachtree Rd., NW, Atlanta, GA 30367; phone 404/681-2961.

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Other Publications

- Anderson, R.L.; Brown, H.D. Disease control for southern trees. *For. Farmer* 44(5): 73-76; 1985. [Fifth Man. Ed.]
- Blanche, C.A.; Nebeker, T.E.; Hodges, J.D.; Karr, B.L.; Schmitt, J.J. Effect of thinning damage on bark beetle susceptibility indicators in loblolly pine. In: Shoulders, E., ed. *Proceedings, third biennial southern silvicultural research conference; 1984 November 7-8; Atlanta, GA. Gen. Tech. Rep. SO-54. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1985: 471-479.*
- Bridges, J.R.; Nettleton, W.A.; Connor, M.D. Southern pine beetle (Coleoptera:Scolytidae) infestations without the bluestain fungus, *Ceratocystis minor*. *J. Econ. Ecol.* 78:325-327; 1985.
- Bryant C.M. Hazard-rating systems aid southern pine beetle prevention in Texas. In: Shoulders, E., ed. *Proceedings, third biennial southern silvicultural research conference; 1984 November 7-8; Atlanta, GA. Gen. Tech. Rep. SO-54. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1985: 480-484.*
- Hodges, J.D.; Nebeker, T.E.; DeAngelis, J.D.; Karr, B.L.; Blanche, C.A. Host resistance and mortality: a hypothesis based on the southern pine beetle-microorganism-host interactions. *Bull. Ent. Soc. Amer.* 31(1): 31-35; 1985.
- Lorio, P.L., Jr.; Hodges, J.D. Theories of interactions among bark beetles, associated microorganisms, and host trees. In: Shoulders, E., ed. *Proceedings, third biennial southern silvicultural research conference; 1984 November 7-8; Atlanta, GA. Gen. Tech. Rep. SO-54. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1985: 485-492.*
- Thatcher, Robert C. Integrated pest management: healthy forest offers best protection against insect attacks. *For. Farmer* 44(5): 70-72; 1985. [Fifth Man. Ed.]

